

SYNQNET™ DIGITAL PWM BRUSHLESS SERVO AMPLIFIERS FEATURES & OPTIONS

- **100% SynqNet™ compliant** Allows complete drive configuration, control, monitoring and firmware updates over the SynqNet™ network. Synchronizes to SynqNet™ network update to minimize update jitter and skew for improved motion control.
- **Digital current loops** Current loop bandwidths up to 3 kHz.
- **Digitally tuned** All parameters set digitally. No potentiometers to adjust. DSP control for the ultimate in high performance.
- **Silent operation** 24 kHz PWM standard.
- **Complete isolation** Complete optical isolation between signal and power stage.
- **Wide operating voltage** 24-370 VDC for Amplifier modules. All stand-alone and multi-axis versions can be ordered for operation from either 110-130 VAC or 208-240 VAC (single or 3-phase, 50/60 Hz).
- **Direct AC operation** No transformer required for stand-alone units or multi-axis chassis. Most stand-alone units and all multi-axis chassis include a DC bus power supply, regen clamp with dumping resistor, in-rush current limiting protection at power-on and cooling fans. Note: A reduced cost stand-alone version is offered which does not include the regen circuit or cooling fans.
- **Fault protection** Short from output to output, short from output to ground, amplifier RMS over current, amplifier under/over voltage, amplifier over temperature, motor over temperature, primary and auxiliary encoder broken wire.
- **RS-232** High speed (115.2K baud) serial communication interface for set-up and tuning.
- **Software configurable** Glentek's Windows™ based MotionMaestro™ software provides ease of set-up and tuning with no previous programming experience required. This software is Windows™ 95/98/2000 and NT compatible. Configuration can also be performed over SynqNet™.
- **Non-volatile memory** All parameters are stored in non-volatile memory. Up to two configurations can be stored at one time.
- **Dedicated optical inputs** +/- limits, node disable, home and motor over temp(non-isolated).
- **Dedicated optical outputs** Node alarm and brake.
- **General purpose inputs** 2 optically isolated and 2 high-speed differential receivers.
- **General purpose outputs** 2 optically isolated and 2 high-speed differential transmitters.
- **Encoder feedback** Accepts encoder signals up to 4.3 Mhz. Accepts traditional and reduced wire encoders (Tamagawa, Sanyo Denki and Yaskawa).
- **Power on phase finding** Eliminates the requirement for Hall sensor/commutation tracks for many applications.
- **Auxiliary encoder inputs** A, B and index channels passed to the controller.
- **Status indicator** 7-segment display indicates amplifier status and fault codes.
- **Sinusoidal commutation** For the ultimate in efficiency and smooth motion. Commutates from almost any resolution rotary encoder or linear scale.
- **Sine encoder interpolation** Accepts 1 Vpp sine/cosine feedback, and interpolates up to 4096 (12 bit). Max. frequency 500KHz/ channel.
- **External logic supply input** 24 to 48VDC, 600mA min @ 24VDC Powers all amplifier logic and encoders.
(SMC9XX models only)
- **SMT construction** Provides ultra compact size, cost competitive package and high reliability.
- **CE compliant** All servo amplifiers are CE marked.

The difference between SMB and SMC models.

1. SMB model uses BUS input to power up the logic board and encoder.

Advantage: Only requires one input power source to operate the amplifier. Disadvantage: In case of input power failure, the amplifier will shut down completely including the logic board and encoder.

2. SMC model requires external 24VDC input to power up the logic board and encoder.

Advantage: As long as the external 24VDC stays on, the logic board and encoder power will stay alive even if the BUS input shuts down.

Disadvantage: Needs two separate input power sources (external 24VDC and BUS input) to operate the amplifier.



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